

#15.

Hawaiian Explorations.

D^r 4035-4051.

H^r 4484-4516.

July 9th - July 14th, '02

16.72.60

~~7 49.20~~

~~22.40~~

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 407.
Hutchinson.
No. Hg 4484 Date July 9th '02.
Tanner Machine. Reel.

Turns 13 Cor. + 1 Depth 14 fm

Shot or lead 36 lbs.

Bottom fm co S. Form.

Bottom temperature 78

No. of thermometer 13 Cor.

Corrected temperature

Air 78 Surface 78 Drift

Travel or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
10.03.10	04.05	0		
		100		
Marks end of		200		
No 4034		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Diamond Head Light, N 20° W., 22.0'

Oct
10
1913

496
13
483

12

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

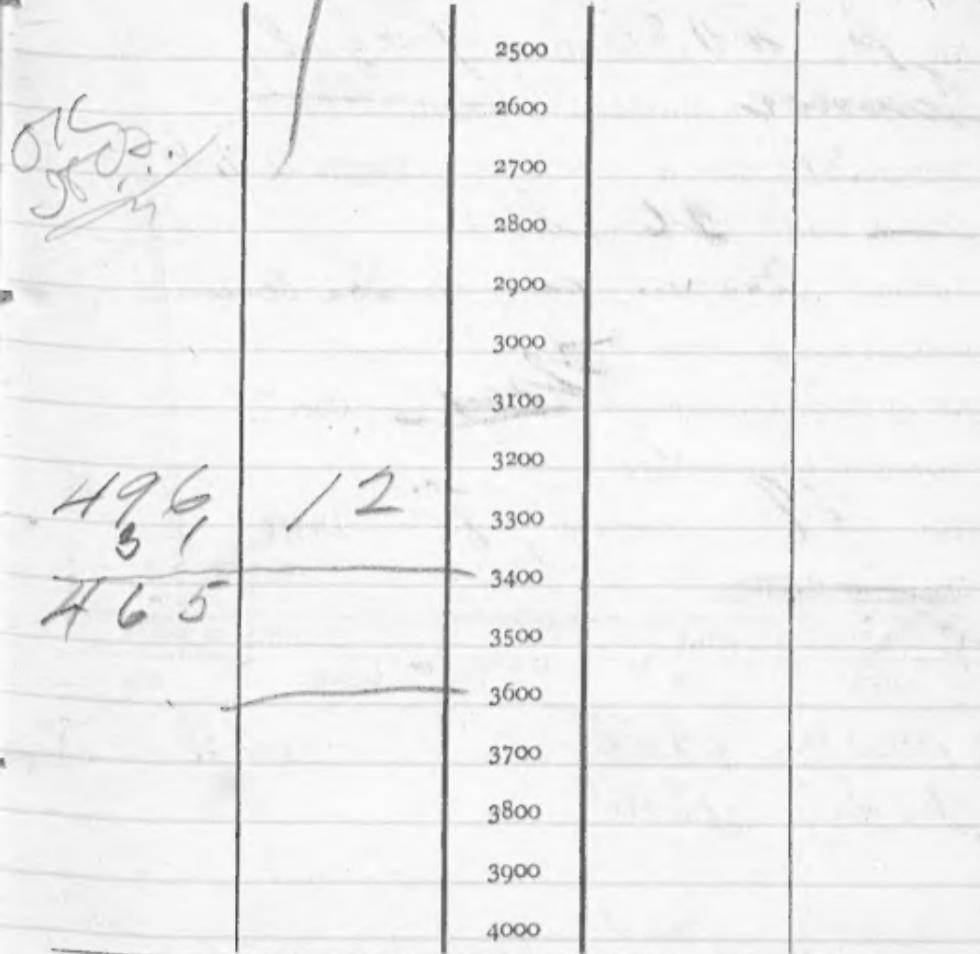
SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Kurt No's	5x	4035	
50		4y	4484	
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

<i>Hutchinson</i>	No. N 4035	Date July 9 th
Tanner	Machinc.	Reel.
Turns 31 Cor. + 1		Depth 32 fms
Shot or lead 26 lbs		
Bottom Foom. cos co S. 2d.		
Bottom temperature <i>78</i>		
No. of thermometer <i>78</i>		Cor.
Corrected temperature		(82.3° E)
Air <i>78</i>	Surface <i>78</i>	Drift $\frac{4}{10}$
Trawl or dredge 8 Seals in gear (trap)		
SOUNDING WIRE.		DREDGE ROPE.
DOWN.	UP.	DOWN.
10. 14.15	14.50	10-28.25
14.25	14.30	31.40
		35.00
		37.00
		57.20
	400	
	500	
	600	
	700	
	800	
	900	
	1000	
	1100	
	1200	
	1300	
	1400	
	1500	
	1600	
	1700	
	1800	
	1900	
	2000	
	2100	
	2200	
	2300	
	2400	

Diamond Head Light, N 21° W., 23.0'



SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50	Jangle.			
100				
200	D-Gillat notes	"Not on		
300	bottom".			
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Huttonian
 No. 4485 Date 9th July '02
 Seioboo Machine. Reel. Starry.
 Turns 351 Cor. + 35 Depth 386 fm
 Shot or lead 36 lbs S.
 Bottom few Foram. Sea Anemone
 Bottom temperature 41
 No. of thermometer 92446 Cor.
 Corrected temperature
 Air 78 Surface 78 Drift
 Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
10.09.10	19.50	0		
10.45	18.45	100		
11.55	17.30	200		
13.10	16.10	300		
13.45	15.20	351		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Diamond Head Light, N $21^{\circ} 10'$ W, 23 $\frac{5}{10}'$.

496	351	35	386	2500
				2600
				2700
				2800
				2900
				3000
				3100
				3200
				3300
				3400
				3500
				3600
				3700
				3800
				3900
				4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P.L. = 21.5

No. 4486 Date 10 July 1902.

Lysbee Machine 1 Reel. N.W.

Turns 1396 Cor. + 123 Depth 1524 fms.

Shot or lead 35 lbs.

Bottom fine M. S. M. b.

Bottom temperature 35.1

No. of thermometer 92446 Cor.

Corrected temperature

Air 79° Surface 78° Drift

~~Trawl or dredge~~

Am.	SOUNDING WIRE.	TURNS.	DREDGE ROPE.	
	DOWN.		DOWN.	UP.
8. 04. 40	8. 41.20	0		
05. 50	40.20	100		
06. 55	39.20	200		
08. 10	38.20	300		
09. 35	37.20	400		
10. 55	36.20	500		
12. 10	35.10	600		
13. 30	34.16	700		
14. 58	33.05	800		
16. 10	32.00	900		
17. 26	30.50	1000		
18. 50	29.35	1100		
20. 10	28.20	1200		
21. 40	27. 80	1300		
8. 22. 10	8. 25.25	1396 1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

SW approach to Aenuihaha Channel,
between Kahoolawe & Maui Ids -

		2500	Kawaihae Light,
		2600	87° E., 61.0'
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
		3700	
		3800	
		3900	
		4000	
4830.	257		
1396	129		
3431'	128		
	13.96		

1524 farr.
SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

448 Date 10 Aug., 1902

Cotton Machine Reel.

Turns 166 Cor. + 107 Depth 1815 fms.

Shot or lead 35 lbs.

Bottom 186.07

Bottom temperature 56°

No. of thermometer 92446. Cor.

Corrected temperature

Air 81° Surface 78° Drift

Fawl or dredge

SOUNDING WIRE.		TURNS.		DREDGE ROPE.
DOWN.	UP.		DOWN.	UP.
11.12.15	54.10	0		
12.10	52.55	100		
14.10	51.70	200		
15.10	50.45	300		
16.10	49.45	400		
17.20	48.40	500		
18.20	47.45	600		
19.25	46.35	700		
20.55	45.20	800		
21.15	44.35	900		
22.55	42.15	1000		
23.55	42.00	1100		
24.10	40.55	1200		
24.20	39.15	1300		
24.55	38.25	1400		
25.15	37.45	1500		
25.40	35.50	1600		
11.32.10	11.34.30	1650		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kawaihae light, 80° E., 45.0'

		2500
		2600
		2700
		2800
		2900
		3000
		3100
		3200
		3300
		3400
		3500
		3600
16.30.	2.5°	3700
16.65.	1.07	3800
16.25	1.00	3900
	16.25	
	1.815	4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. S. 4455 Date 10.10.1902

Machine Reel.

Turns 100 Cor. + 100 Depth 1170 fms

Shot or lead

Bottom 100 fms 94.8 Cm

Bottom temperature 35.5

No. of thermometer 934.16 Cor.

Corrected temperature

Air 84 Surface 77 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
3-10.0		0		
14-		100		
14.5		200		
15.5		300		
16.5		400		
17.5		500		
18.5		600		
19.5		700		
20.5		800		
21.5		900		
22.5		1000		
23.5	25.30	1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kauai Kai Light, 8820 E., 34.0'

4530	3657	2500
1087	152	2600
3743	03	2700
	1957	2800
	1190	2900
		3000
		3100
		3200
		3300
		3400
		3500
		3600
		3700
		3800
		3900
		4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. H036 Date 10th July 02.

Machine. Reel.

Turns 21 Cor. + 62 Depth 68 fms

Shot or lead 6

Bottom 10 fms

Bottom temperature 38.6

No. of thermometer 1 Cor.

Corrected temperature 38.6

Air 87 Surface 8 Drift 1 3/10

Trawl or dredge 53 fms

SOUNDING WIRE.

TURN.S.

DREDGE ROPE.

UP.

100	00	0	11.00	
200	00	100	11.10	11.20
300	00	200	11.00	11.10
400	00	300	11.20	11.30
500	00	400	11.30	11.40
600	00	500	11.40	11.50
700	00	600	11.50	11.60
		700	36.20	38.00
		800	11.10	11.20
		900	11.10	11.20
		1000	11.20	11.30
*		1050	11.30	11.40
		1100	11.40	11.50
		1150	11.50	11.60
		1200	11.60	11.70
		1250	11.70	11.80
		1300	11.80	11.90
		1400	11.90	12.00
		1500	12.00	12.10
		1600	12.10	12.20
		1700	12.20	12.30
		1800	12.30	12.40
		1900	12.40	12.50
		2000	12.50	12.60
		2100	12.60	12.70
		2200	12.70	12.80
		2300	12.80	12.90
		2400	12.90	13.00

* On bottom

West Coast of Hawaii Island,
Kawaihae Light, S 80° E., $24^{\circ} 7' N.$

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

45.3

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100	been improved by Mr. Alexander			
200	by taking the mean to which the			
300	depth is reduced,			
400	the present observations			
500	and the temperature			
600	with the pressure			
700	altered accordingly.			
800				
900				
1000				

REMARKS:

Bottom - Many simple corals;
3 sp. sponges - few; 3 sp. worms - few; 2
sp. starfish - 1 each; 2 sp. anemones - 1
each; 1 sp. ascidian (few);
1 shrimp; 1 polycypax; 1 gorgonian.

S. 60.6

No. 1037 D^W Date 10/14/1902

Turns 25 Cor. + 63 Depth 692 fms
 Shot or lead 60 ft

Bottom 97 m. Form R.

Bottom temperature 38°

No. of thermometer 72 Cor.

Corrected temperature

Air 8° Surface 70 Drift

Trawl or dredge 45' 2 fms. Depth 117 fms.

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
6.00		0	6.42.30	7.10.30
20.00		100	7.00.00	6.60.00
37.00		200	8.97.00	9.03.10
54.00		300	5.45.30	5.45.30
71.00		400	7.45.00	5.55.00
88.00		500	7.01.10	5.1.40
105.00		600	5.5.00	4.5.00
122.00		700	7.3.00	6.1.50
139.00		800	12.30	30.10
156.00		900	16.30	17.15
173.00		1000	2.1.20	11.00
190.00		1100		8.34.10
207.00		1200		7.57.50
224.00		1300		21 min.
241.00		1400		
258.00		1500		
275.00		1600		
292.00		1700		
309.00		1800		
326.00		1900		
343.00		2000		
360.00		2100		
377.00		2200		
394.00		2300		
411.00		2400		

Parasite height 0.4° ~ 1.2'

SERIAL TEMPERATURES

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Dear Marin (Hiram and me) while staying
in Oregon we go to Fort Ross, where
we had a good time.

Pridde steps carried away; not eas.
Pigot. Frame wrecks; not the like here,
Boat is extremely meager. —
Course (from Edson's) E. by N.

No. Dr. 4038. Date 10 June '02
 Dredge Machine #1 Recd. 7 am

Turns 626 Cor. + 63 Depth 689 m.

Shot or load 60 lbs.

Bottom 20 fms. Firm.

Bottom temperature 38.5°

No. of thermometer 92446. Cor.

Corrected temperature (N 70° W)

Air 80° Surface -6° Drift 1 1/10.

Trawl or dredge 5' x 12' 20 min. down.

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
C. 15.10	G. 22.10	0	9. 49.00	11. 29.05
16.15	28.05	100	22.00	25.10
16.45	27.05	200	56.50	21.40
17.15	26.00	300	10.00.10	16.00
17.25	24.55	400	03.20	14.15
17.35	22.10	500	06.50	10.15
17.35	22.20	600	10.30	06.00
17.35	22.00	626	14.00	11. 01.30
		700	17.20	56.55
		800	21.20	53.00
		900	24.25.40	49.10
		1000	10.36.30	10.45.05
		1100		
		1200		
*	On bottom.	1300	20 min.	
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Blue light, 4° 10' S. 51° 25.0'

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

62
63
68 75

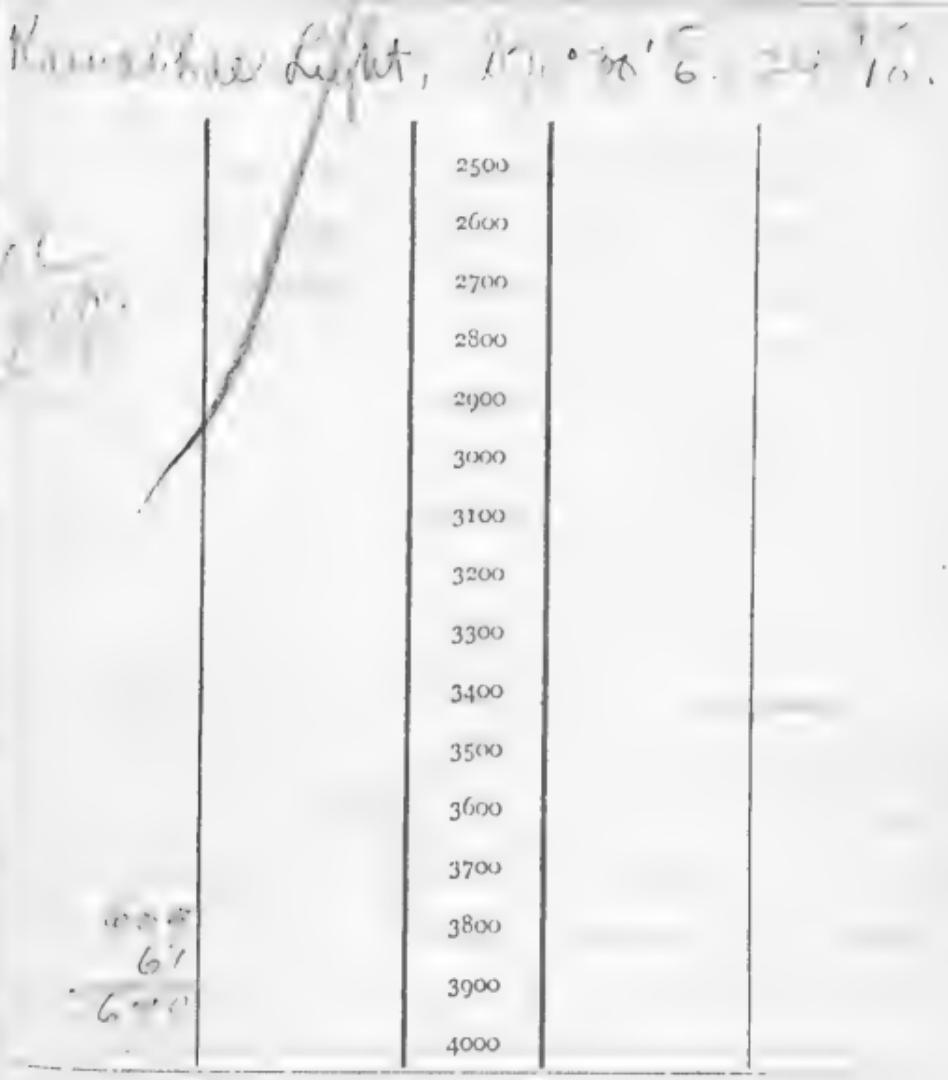
SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Blake Trawl.			
50		Few simple corals & one Afa;		
100	1 sp. sponge;	1 each of 2 sp. worms;		
200	1 Cub;	1 Lehmi,		
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Dr. course to 200 fms. N.E.

No. Dr. 4039. Date 10 July '02.				
Pipesbee Machine. 1 Reel. Navy.				
Turns 609. Cor. + 61	Depth 670 fms.			
Shot or lead 60 lbs.				
Bottom 70 m. 5 fms.				
Bottom temperature 38.7				
No. of thermometer 92446. Cor.				
Corrected temperature				
Air 79° Surface 76° Drift 1° 10'				
Trawl or dredge 5.2 Brandywine 11 fm				
Per Sounding Wire.				
DOWN.	UP.	TURNS.	Dredge Rope.	
11.36.00	11.50.15	0	12.04.50	07.30
36.50	49.10	100	08.30	03.25
37.45	48.10	200	13.10	20.00
38.40	47.00	300	15.30	56.15
39.40	46.00	400	19.05	52.00
40.40	44.45	500	22.05	47.50
41.50	43.21	600	27.50	45.10
11.41.52	11.43.20	609	28 =	37.35
		700		
		800	31.30	31.30
		900	35.25	27 =
		1000	39.25	31.30
		1100	41.10	1-10.10
		1200		=
		1300	33.7 min	
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		



SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	10	Blake Draw =		
50		Hægonian fragment; about		
100	15	purple coral; 1 phormosoma;		
200		several small sea urchins; 1 hol-		
300		therian; 1 cephalopod; 1 shrimp;		
400		1 ophiuran; 1 worm; 1 fish.		
500				
600				
700				
800				
900				
1000				

REMARKS:

Passing west of the following
islands and 118° E. and 10°
N. Knots.

D. V. Seaman, M. B. C. (C. 1900)

No. 50 40.77 Date July 11th 02.

Machine Reel.

Turns 634 Cor. + 68 Depth 697 fms

Shot weight 63 lbs

Bottom by Mr. Brown

Bottom temperature 38.7°

No. of thermometer 73446 Cor.

Corrected temperature 11.6°

Air 78 Surface 77 Drift 1.0

Trawl or dredge 5 1/2 Bunker 100 fms

SOUNDING WIRE.

DOWN.

UP.

URNS.

DREDGE ROPE.

DOWN.

UP.

2	12.00	11.00	0	2-38.054	31.80
10.10	9.10	100	43.50	50	
10.10	9.10	200	46.35	44.60	
10.10	9.10	300	50 =	0.00	
10.10	9.10	400	53.10	1.40	
10.10	9.10	500	56.85	1.05	
10.10	9.10	600	5-01.10	1.20	
19.10	18.10	634	04.20	4.11.10	
		800	08.30	89.20	
		900	12.20	5.11.0	
		1000	16.40	49.30	
		1100	21 =	8.11.15	
		1200			
		1300	28.76	15.10.	
		1400			
		1500			
		1600			
		1700			
		1800			
		1900			
		2000			
		2100			
		2200			
		2300			
		2400			

634	657	2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
		3700	
		3800	
		3900	
		4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200		No catch; bay bottom.		
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Cod set made 61.8 at depa
and 62.4 at int. - 10 fms.
Row 1.1 fms. during sta.

In stock E. 26 (cont.)

62.6

Ap. 11/1894, Date 11/10/94
 Machine 1 Reel 17
 Turns 643 Cor. + 64 Depth 707 fm
 Shot or lead 60 ft.

Bottom 707 fm. Temp. 39°

Bottom temperature

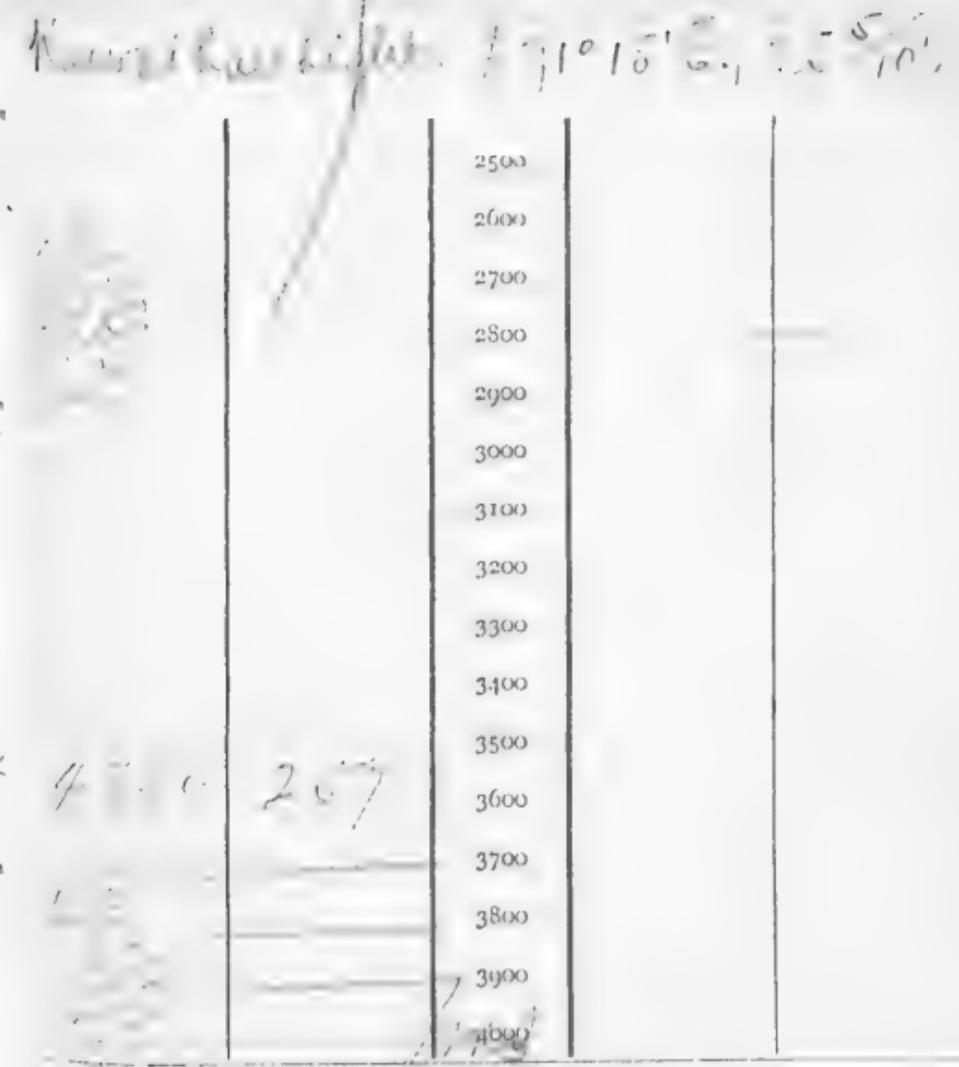
No. of thermometer 92446 Cor.

Corrected temperature

Air 77 Surface 76 Drift

Wind on drift

SOUNDING WIRE. DOWN.	UP.	TURNS.	DREDGE ROPE. DOWN.	UP.
4.42.10	4.57.10	0		
43.10	56.10	100		
44.00	55.10	200		
44.50	54.10	300		
45.00	53.00	400		
46.50	51.40	500		
47.00	50.20	600		
47.10	49.60	600		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		



SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P.L. 67.4.

No. 11110 Date 11 Aug 1902
 Depth Machine Reel.
 Turns 605 Cor. + 600 Depth 665 fms
 Shot or lead 60
 Bottom M. Form. 386
 Bottom temperature 386
 No. of thermometer 92446 Cor.
 Corrected temperature
 Air 77 Surface 76 Drift
 Travel or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
11.00	6.11.10	0		
12.00	7.11.00	100		
13.00	2.11.00	200		
14.00	1.11.00	300		
15.00	21.00	400		
16.00	31.00	500		
17.20	5.11.10	600		
17.20	-	605		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kauai Bay Light. Sept 15th, 1917.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 11491 Date 1
Machine Reel. 4
Turns 365 Cor. + 6 Depth 621 fms
Shot or lead 60

Bottom gy m. forward

Bottom temperature 30°

No. of thermometer 16 Cor.

Corrected temperature

Air 78 Surface 76 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
1.19.00	7.31.10	0		
19.50	30.00	100		
20.00	29.00	200		
21.30	28.00	300		
22.10	29.00	400		
22.00	29.00	500		
1.23.10	7.28.10	600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Keweenaw Light, Sept 18th 1870.

6m	2500		
100	2600		
200	2700		
300	2800		
400	2900		
500	3000		
600	3100		
700	3200		
800	3300		
900	3400		
1000	3500		
1100	3600		
1200	3700		
1300	3800		
1400	3900		
1500	4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P.M. 7-11

No. 4495. Date 11. 20.
 Dredge Machine Reel. Name
 Tubs 543 Cor. + 54 Depth 500 fms.
 Shot or lead 60 lbs.
 Bottom 77 M. Fathom.
 Bottom temperature 39°
 No. of thermometer 92446. Cor.

Corrected temperature

Air 80° Surface 77° Drift

Travel or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
8.18.30	8.30.40	0		
19.20	29.40	100		
20.15	28.35	200		
21.05	27.30	300		
22.10	26.20	400		
23.15	25.05	500		
8.23.45	8.24.30	500		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Keweenaw Right, 900 fms., 15°

		2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
		3700	
		3800	
		3900	
		4000	

*OK
Keweenaw
15°*

*543
54.
597 fms.*

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. Do. 404 Date 11 July '32.
 Siftbox Machine & Reel. 1121 ft.
 Turns 347 Cor. + 35 Depth 382 fms.
 Shot or lead 60 lbs.
 Bottom by M. Frame.
 Bottom temperature 41.6
 No. of thermometer 92446. Cor. 3.58°
 Corrected temperature 88.4°
 Air 82° Surface 77° Drift 1.0°
 Trawl or dredge 8' trawl gear.

SOUNDING WIRE.			DREDGE ROPE.		
DOWN.	UP.	TURNS.	DOWN.	UP.	
9.18.45	9.26.25	0	9.26.20	10.22.15	
10.25	25.30	100	35.10	31.20	
20.20	24.20	200	36.10	28.10	
21.20	23.20	300	46.10	28.40	
21.45	26.45	340	47.10	26.50	
		400	47.10	26.50	
		485	*	17.00	
		500			
		530			
		600			
		700			
On bottom			800	20.10	20.10
			900		
			1000		
			1100		
			1200		
			1300		
			1400		
			1500		
			1600		
			1700		
			1800		
			1900		
			2000		
			2100		
			2200		
			2300		
			2400		

Kauai Kai height 86° 30' E., 10.0'

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

347

35

382 fms.

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Tanner Drawl		=	
50	1 neoscopelus	; 1 each 2 sps		
100	macrurus; 1 brisinga; 1 gorgonian;			
200	3 sps. anemones - 2 m gorgonian			
300	and 1 in gastropod; 2 starfish;			
400	2 ophiurans; 2 spatangoids; 2 sps.			
500	worms - 1 in tubes of lava fragments;			
600	14 sps. gastropods; 2 sponges;			
700	2 balanoglossous; about 8 sps			
800	shrimps; 5 sps holothurians;			
900	dentalium			
1000		✓ ✓		

REMARKS:

Dr. Bruce, R. G., J. M.

No. Dr. 4042. Date 11 July '02.

Lifesaving Machine & Reel. Navy

Turns 230 Cor. + 22 Depth 252 fms.

Shot or lead 60 lbs.

Bottom gy W. 103 am. R

Bottom temperature 45.9

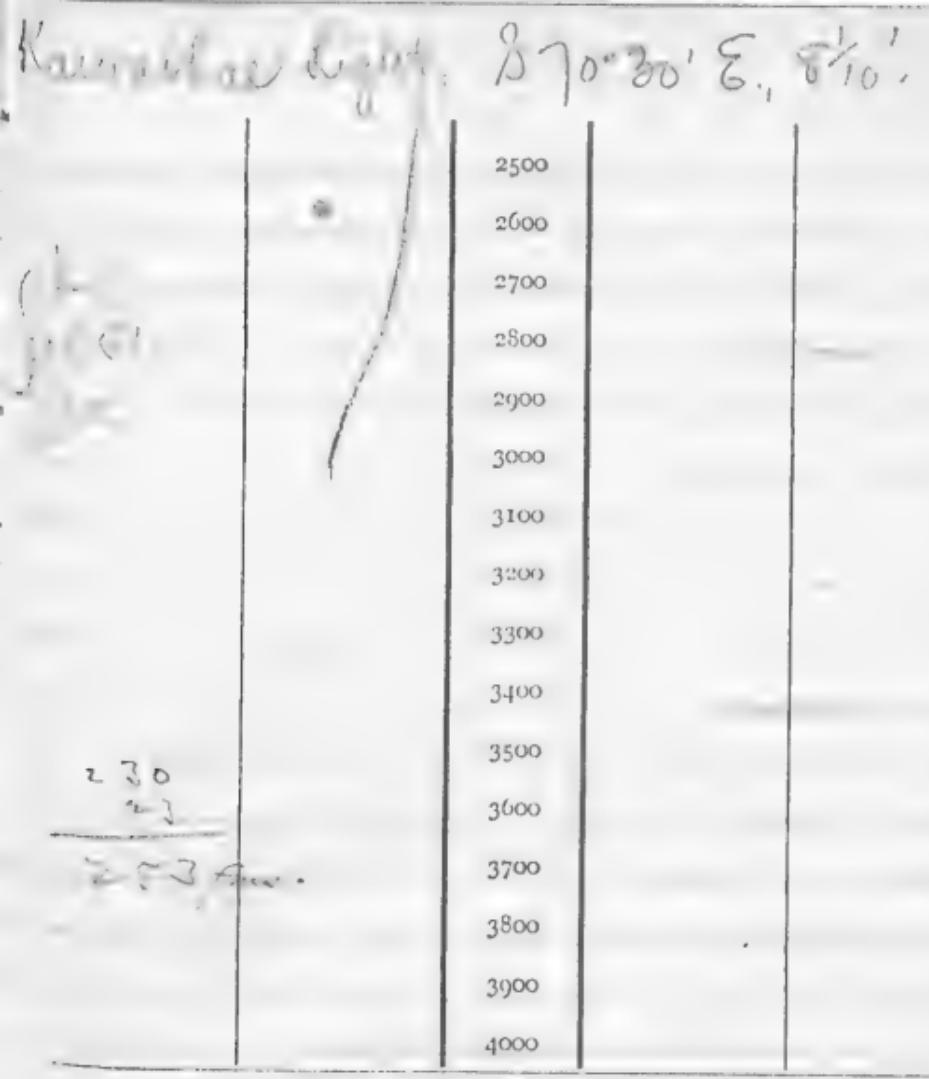
No. of thermometer 92446. Cor.

Corrected temperature

Air 80° Surface Drift { 84.8

Trawl or dredge 8' T. of A. 100.

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
10.40.50	10.42.50	0	10.52.00	11.17.30
41.25	44.45	100	55.50	36.00
10.42.25	10.43.15	200	57.20	22.10
		230	11.03.00	28.45
		300		
		400		
Air 80° Surface		450	11.01.50	11.10.00
		500		
		475		
		600		
Dr. 4041.		700		
		800	8 min.	
		900		
Strain of 3500 lbs		1000		
record out dredging		1100		
wire to 475 above		1200		
commencing to leave		1300		
Heavy strain while		1400		
leaving in up to about		1500		
450 fms., when gradually		1600		
ally said up to but		1700		
1500 of 2000 lbs.		1800		
At 315 fms. strain		1900		
suddenly said to		2000		
500 lbs.		2100		
		2200		
		2300		
		2400		



SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Frame and Net (8' frame, 5' net) and after cast, written and written over top.

No course (or s. o.) S. E.

No. 47. 4793. Date 11 July '02

Machine & Reel, Navy

Turns 208 Cor. + 21 Depth 229 fms.

Sheet or lead 36 lbs.

Bottom gray M. & F. V.

Bottom temperature 46.

No. of thermometer 92 4.46 Cor.

Corrected temperature

Air 80° Surface 77° Drift

Trawl or dredge

SOUNDING WIRE. DOWN.	UP.	TURNS.	DREDGE ROPE.	
			DOWN.	UP.
11.43.30	11.50.10	0		
44.10	49.10	100		
45.55	48.10	200		
11.46.00	11.46.50	408 300		
		400		
After 700 fms.		500		
		600		
At 400 fms.		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kauai (see Light), 87°20'15"E., 7°10'.

		2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
		3700	
		3800	
		3900	
		4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

507.

No. 5 No. 43 Date Aug 11 1902.

Sigsbee Machine. #1 Reel.

Turns 315 Cor. + 21 Depth 206 fm

Shot or lead 35 lbs

Bottom 115 fm R

Bottom temperature 46.9°

No. of thermometer 73446 Cor.

Corrected temperature

Air 82 Surface 77 Drift $\frac{9}{10}$ { 83.8° E

Trawl or dredge 5 1/2' Blake with 11 fm

SOUNDING WIRE. DOWN.	UP.	TURNS.	DREDGE ROPE.	
			DOWN.	UP.
15.15	15.15	0	13-21.10	1345.
11.35	14.45	100	25 =	10.30
12.31	12.35	200	28.40	07.05
12.35	13.15	300	32.10	03.50
		375	35.20	59.30
		400		
		500		
		600	24 Meters	
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Hawaiian Light, 87°40'30"E., 5 $\frac{1}{10}$ °S.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Black	draw =		
50				
100		2 spp. holothuria; 1 pennatulid;		
200		1 ceramium		
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

2530 No fauna seen -
much mud bottom in. Frame
bottom set adheses, and
was very torpid.

15° Celsius at 50 fms.

No. 5 1044 Date 11 Aug 62
 Machine Reel.

Turns 311 Cor. + 11 Depth 133 fms

Shot or lead 36 lbs

Bottom fine sand

Bottom temperature 17°

No. of thermometer 92446 Cor.

Corrected temperature

Air 55° Surface 71° Drift 11°

Trawl or dredge 10 min. no trace.

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

1000	25.50	0	1000	3415
1100	26.50	100	1100	33.5
1200	26.50	200	1200	10.0
1300	27.45	300	1300	15.0
1400	27.45	400	1400	10.5
1500	27.45	500	1500	16.0
		600		
		700		21 min
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Bar chart depth 880° 30' E., 5° 30' S.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25		Tangles.		
50		3 sps. crab; 2 munida;		
100		2 sps. holothuria; 1 antedon; 2 sps.		
200		spatangoidea; 5 sps. ophiurans;		
300		4 sps. starfish; long-spined		
400		urchins; 3 sps. barnacles attached		
500		to urchin spine.		
600				
700				
800				
900				
1000				

REMARKS:

P. C. Moore S. S. (1900)

No. 15 4046 Date July 32.

Machine. Reel.

Turns 100 Cor. + 15 Depth 15 fms.

Shot or lead 36 lbs.

Bottom 15°

Bottom temperature 49°

No. of thermometer 72446 Cor.

Corrected temperature 48.5°

Air 56 Surface 78 Drift 1

Travel or dredge 8 fms.

SOUNDING WIRE.		TURNS.	DREDGE	ROPE.
DOWN.	UP.		DOWN.	UP.
25.00	16.00	0	25.00	25.00
27.00	18.00	100	27.00	26.50
28.00	19.00	200	28.00	19.35
		300	49.30	15.35
		350	53.00	16.13
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Keweenaw Light, N 82° 30' E., 4 $\frac{1}{16}$ '.

	Tangles:
2500	many <i>munida</i> ;
2600	4 sps. clab; 2 sps.
2700	bermets; many
2800	<i>dentalium</i> ; 2 sps
2900	urchins; several
3000	sp. ophiurans; 2 sps
3100	starfish; several
3200	brachiopods; several
3300	simple corals; 3
3400	sp. branched corals;
3500	several sps. m. (blue) corals
3600	phello.
3700	
3800	
3900	
4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Note =			
50	The tangles used for the			
100	thermometer were			
200	the same at			
300	water			
400	at			
500	In water to 40°		1°	40°
600	tangles were			
700	bright			
800	The first 40°			
900	tangles were			
1000	the same as			

REMARKS:

The thermometer was taken from the boat in which I was working.

W. G. C. (1885)

No. 54046 Date 11/2/12
 Machine. Reel. 517
 Turns 134 Cor. + 13 Depth 147 fms
Shot or lead 36
 Bottom 25 C
 Bottom temperature 59°
 No. of thermometer 92446 Cor. 1.30°
 Corrected temperature 1.30°
 Air Surface Drift 1.30°
 Trawl or dredge 5 m

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
30.30	36.30	0	37.10	4.10
31.30	34.00	100	32.10	4.10
31.50	34.00	200	32.10	4.10
		225	46.50	4.10
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kauai, N 52° E., 3 $\frac{4}{10}$ °.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	70.0	2		
50	70.0	1		
100	70.0	1		
200	70.0	1		
300	70.0	1		
400	70.0	1		
500	70.0	1		
600				
700				
800				
900				
1000				

REMARKS:

3 fms. of sounding line lost off bottom last night.

Dr. J. S. (yes)

No. 111 Date 11 July 1902
Machine. Reel. Naou
Turns Cor. + Depth 71 fm.
Bottom depth 50 fm.

Bottom 60.0

Bottom temperature 69.4

No. of thermometer 11.6 Cor.

Corrected temperature

Air 87 Surface 79 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
11.10	11.10	60		
11.20	11.20	61		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

N 29° 30' E., 4.0'

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

10000 P. S. 89.4
 No. Dr. 4047 Date 11/10/02
 Machine Reel.
 Turns 19° Cor. + 0 Depth 15 fms
 Shot or lead
 Bottom They are 60 S. R
 Bottom temperature 47.6
 No. of thermometer 92444.6 Cor. 11.14 W
 Corrected temperature
 Air 85° Surface 78° Drift 2° 1/2
 Trawl or dredge

SOUNDING WIRE.			DREDGE ROPE.		
DOWN.	UP.	TURNS.	DOWN.	UP.	
1200	5. 10. 10	0	1200	107.40	
1300	16.00	100	1300	10.00	
1400	1. 11. 00	190	1400	59.50	
		300		12.00	
		400		1. 00	
		500		1. 00	
		600		1. 00	
		700		1. 00	
		800		1. 00	
		900		1. 00	
		1000		1. 00	
		1100		1. 00	
		1200		1. 00	
		1300		1. 00	
		1400		1. 00	
		1500		1. 00	
		1600		1. 00	
		1700		1. 00	
		1800		1. 00	
		1900		1. 00	
		2000		1. 00	
		2100		1. 00	
		2200		1. 00	
		2300		1. 00	
		2400		1. 00	

Kawika Light, N 64° E., 8⁵/₁₀.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Bag of netting trawl.

No. H.H. 15 May Date 11 July 1902
 Machine. Reel. Tadley
 Turns 211 Cor. + 21 Depth 232 m.
 Shot or lead 26 kg.
 Bottom true, dry, s. 46.5°
 Bottom temperature 61.6°
 No. of thermometer 6 Cor.
 Corrected temperature 61.6°
 Air 62 Surface 78 Drift

~~Travel or dredge~~

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
610.30	611.11	0		
11.30	12.11	100		
12.00	13.50	200		
11.10	611.11	211		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kauai, Augt. 2166° S. 8 $\frac{5}{10}$

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

S. 92.4.

No. 220 Date 11 July 1902
 Sights Machine Reel.
 Turns 223 Cor. + Depth 2413 ms
 Shot or lead 35#
 Bottom pre-gy. S. 30° 47°
 Bottom temperature 47°
 No. of thermometer 72446 Cor.
 Corrected temperature
 Air 82 Surface 7.8 Drift
Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
64.40	34.00	0		
44.40	53.00	100		
15.35	51.50	200		
		223		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Keweenaw Light N 88° E. 8²/₁₀

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

2 2 2 2 3

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Anch. P. of. 95° 4'

No. 4043

Date 11 July 1902

Sounding Machine. (Recl.)

Turns 340 Cor. + 4 Depth 3 1/4 fms

Shot or lead 60

Bottom fine gy. R.

Bottom temperature 41.2

No. of thermometer 92 110.6 Cor.

Corrected temperature

Air 82 Surface 78 Drift 1 1/10

Trawl or dredge 10.100 fms

SOUNDING WIRE.		TURNS.	ON DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
7.2	7.2	0	7.00	7.0
21.2	21.40	100	21.00	21
31.2	31.40	200	31.00	31
37.40	37.2	300	37.00	37
		400	37.00	37
		500	37.00	37
		600	37.00	37
		650	37.00	37
		700	37.00	37
At 8.12 out		800		
P. S. reading 0.54		900	26	Min.
end of trawl 0.544		1000		
P. S. failed to rise		1100	Same strain round	
water, not far from		1200	bottom, but de-	
water, not far from		1300	same here in -	
enough		1400	While hoisting in	
bottom		1500	it fell back the	
bottom on account		1600	of the min. force	
down below		1700	water, will go on	
heavy strain, no		1800	when hoisted up	
hoisted out of		1900	probab. strained.	
		2000		
		2100		
		2200		
		2300		
		2400		

Kwai River Light, 871° 30' E., 9° 10'

Okt.
1911

34.6
34.3
34.1
34.0

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

First 375 fms. during night, wind
from SSW, not very strong, and
sky clear, full moon, choppy, etc.

Dr. conus (pro-E.C.) N.N.W.

No. Dr. 40449. Date 11 July '02.

Sig. Machine & Reel. Trawl

Turns 415 Cor. + 41 (Depth 1156 fms.)

Shot at least 60 lbs.

Bottom Am. Co. S. Sov.

Bottom temperature 41. —

No. of thermometer 92.5 Cor. { 0.75

Corrected temperature

Air 70° Surface 78° Drift { 12°

Trawl or dredge 8 Tangle. S. Sov. same

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
0.56.20	10.06.20	0.	10.14.00	11.52.30
57.20	05.20	100	18.20	49.00
58.20	04.20	200	23.45	45.15
59.20	02.10	300	27.00	41.20
10.00.20	10.02.00	400	30.45	37.5
		415	34.05	33.05
		500		
After 70 fms.		600	38.50	29.00
		700	42.55	24.45
Dr. 40448		800	10.47.25	11.20.00
		900		
P. at bottom 95.4		1000	32	min.
at surface 91.2		1100		
Cor. 0.0		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

K. - Laught. 86°30' S., 10 $\frac{6}{10}$ '

445
44
~~45~~ 6

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				"No specimens";
300				
400				water-hail.
500				
600				
700				
800				
900				
1000				

REMARKS:

Dr. George (W. C.) W.

No. 4497 Date 12 July 02.

Cir's bee Machine 1 Reel, Navy

Turns 484 Cor. + 15 Depth 2 fms.

Shot or lead 60 lbs.

Bottom dep. 8' 0"

Bottom temperature 40°

No. of thermometer 92446 Cor.

Corrected temperature

Air 78 Surface 78 Drift

Trawl or dredge

SOUNDING WIRE. DOWN.	UP.	TURNS.	DREDGE ROPE.	
			DOWN.	UP.
03.00	16.00	0		
03.30	14.45	100		
04.50	13.35	200		
06.00	12.25	300		
	11.15	400		
08.10	10.10	500		
Marks end of		600		
50 4049		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

		2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
		3700	
		3800	
		3900	
		4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Aug. 22, 0.

No. 111 Date 13 Aug 1902

Machine Reel.

Turns 62 Cor. + 6 Depth 68 fm.

Shot or lead 36

Bottom 68 fm.

Bottom temperature 73°

No. of thermometer 92/11/16 Cor.

Corrected temperature

Air 82 Surface 78 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
210730	0925	62		
68110	710840			
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kauai, Hawaii, N 43° E., 7.

Corrected, N. 47° E.

6.10.
6.10.
7.12

4330

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No.

Date

Machine.

Reel.

Turns 164 Cor. + 15 Depth 169 1/16

Shot or lead 36

Bottom

Bottom temperature

No. of thermometer 92 1/4 Cor.

Corrected temperature

Air 80 Surface 78 Drift

Trawl or dredge

SOUNDING WIRE.

TURNS.

DREDGE ROPE.

DOWN.

UP.

DOWN.

UP.

51 10	3.01.00	0	
51 00	2.97.56	100	
50 30	2.97.10	154	
		300	
		400	
		500	
		600	
		700	
		800	
		900	
		1000	
		1100	
		1200	
		1300	
		1400	
		1500	
		1600	
		1700	
		1800	
		1900	
		2000	
		2100	
		2200	
		2300	
		2400	

Geological Column	Age in millions of years
	2500
	2600
	2700
	2800
	2900
	3000
	3100
	3200
	3300
	3400
	3500
	3600
	3700
	3800
	3900
	4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

NOT.

No.

44

Date

14' 07

Machine.

Reel.

154

Turns 213 Cor. + 21

Depth 234 fms

Shot or lead

26

Bottom

74.2

Bottom temperature

74.2

No. of thermometer 9.2 wet up 6 Cor.

Corrected temperature

Air 80 Surface 78 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
0.00	213.0	0		
50.00	214.0	100		
100.00	214.0	200		
150.00	214.0	400		
200.00	214.0	500		
250.00	214.0	600		
300.00	214.0	700		
350.00	214.0	800		
400.00	214.0	900		
450.00	214.0	1000		
500.00	214.0	1100		
550.00	214.0	1200		
600.00	214.0	1300		
650.00	214.0	1400		
700.00	214.0	1500		
750.00	214.0	1600		
800.00	214.0	1700		
850.00	214.0	1800		
900.00	214.0	1900		
950.00	214.0	2000		
1000.00	214.0	2100		
1050.00	214.0	2200		
1100.00	214.0	2300		
1150.00	214.0	2400		

		2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
		3700	
		3800	
		3900	
		4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P.L. = 37.00

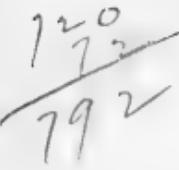
No. Ex. 4501 Date 12 Oct. '02
 Eiffel Machine / Reel 7200
 Turns 720 Cor. + .72 Depth 792 fms.
 Shot or lead 36 lbs.
 Bottom free gy. S.
 Bottom temperature 37.3
 No. of thermometer 92 446. Cor.
 Corrected temperature
 Air 80° Surface 78° Drift

Trawl or dredge.

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
4. 40.25	4.57.05	0		
41.15	56.05	100		
42.10	55.05	200		
43.05	54.05	300		
44.10	53.05	400		
45.15	52.05	500		
46.20	51.00	600		
47.25	49.45	700		
48.00	47.49.30	720		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

100 fms. South of Cape Hatteras

Lat. $35^{\circ} 30' S.$, Long. $75^{\circ} 30' E.$

 	Cor:	$N 64^{\circ} 30' E.$
	2500	
	2600	
	2700	
	2800	
	2900	
	3000	
	3100	
	3200	
	3300	
	3400	
	3500	
	3600	
	3700	
	3800	
	3900	
	4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P.L. 39.-

No. 44. 4502 Date 13 July
~~2000~~ Machine / Reel. Day
 Turns 1227 Cor. + 105 Depth 13 1/2 fms.
 Shot or load 60 lbs.
 Bottom ...
 Bottom temperature 35.5
 No. of thermometer 92446. Cor.

Corrected temperature

Air 80° Surface 78° Drift

Trawl or dredge.

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
5. 18. 10	5. 115.00	0		
19. 50	44.00	100		
19. 50	42.50	200		
20. 40	41. 10	300		
21. 20	40. 30	400		
20. 15	39. 50	500		
20. 15	38. 10	600		
20. 10	38. 00	700		
20. 10	36. 50	800		
20. 10	35. 10	900		
20. 10	34. 30	1000		
20. 15	33. 50	1100		
20. 20	32. 10	1200		
5. 29. 30	5. 31. 00	1227		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kawaihae light. N 23° 5', 23° 5' E.

Core No. 67 E.

		2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
4830	257	3600	
1227	142	3700	
3603	115	3800	
	1237	fr -	3900
	1342		4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P.L. = 44' on

No. 58. K-03 Date 13 Aug '02,
 Sounding Machine & Reel
 Turns 7552 Cor. + 116 Depth 1693 fms.
 Shot or lead 60 lbs.
 Bottom for gy. 2. F.S.
 Bottom temperature 35.1
 No. of thermometer 92447 Cor.

Corrected temperature

Air 81° Surface 78° Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
6. 28.30	7.03.45	0		
29.15	02.45	100		
30.10	01.50	200		
31.00	7.00.50	300		
32.00	57.50	400		
33.00	58.55	500		
34.05	57.55	600		
35.10	56.55	700		
36.15	55.50	800		
37.25	54.45	900		
38.30	53.45	1000		
39.40	52.40	1100		
40.45	51.35	1200		
42.00	50.15	1300		
43.10	49.00	1400		
44.20	47.45	1500		
6. 45.00	6.46.50	1550		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kankakee River, 850° 36' E., 107°

GK
JL C. 27.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

46.0
15.2
32.7
11.6
14.0
15.2
16.3

fine.
3900

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P.L. 49.-

No. 74. 4504 Date. 2 July 1882.
 Sioebec Machine. Reel. 17.00
 Tubs 1219 Cor. + 143 Depth 133 fms.
 Shot or lead 60 lbs.
 Bottom For. Lowered
 Bottom temperature 35.6
 No. of thermometer 92446. Cor.
 Corrected temperature
 Air 79° Surface 78° Drift
 Trawl or dredge-

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
7.50.00	8.17.05	0		
71.40	16.05	100		
72.30	15.00	200		
73.20	14.05	300		
74.10	13.00	400		
75.00	12.00	500		
76.10	10.50	600		
77.15	09.50	700		
78.15	08.50	800		
79.25	07.50	900		
8. 20.20	06.50	1000		
01.20	05.25	1100		
02.55	04.20	1200		
8. 02.10	8. 04.00	1219 1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Bathysphere Log No. 17

K
C
S
H

		2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
1820	2.5°	3700	
1219	14.3	3800	
3611	11.0	3900	
	12.19	4000	
		fm.	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Oct 13, 1902

No. 1005 Date Oct 13, 1902.
 Dye Machine Rect.
 Turns 955 Cor. + 93 Depth 1048 fms
 Shot or lead 60 lbs
 Bottom Stone
 Bottom temperature
 No. of thermometer 73446 Cor.
 Corrected temperature
 Air 79 Surface 77 Drift
 Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
57.40	04.30	0		
57.50	03.15	100		
57.60	02.15	200		
57.70	01.15	300		
57.80	9.00.30	400		
57.90	7.10.00	500		
58.00	5.20.00	600		
58.10	57.10	700		
58.20	55.00	800		
58.30	53.00	900		
58.40	51.30	955		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Keahole Point, 85°45' S., 57°10'

		2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
		3700	
		3800	
		3900	
		4000	
4830	257		
955	164		
<u>3875</u>	<u>93</u>		
	<u>955</u>		
	<u>1048</u>		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Wore 35 fms line out
while dredging in full pull
and carried away.
Lost 20 fms of wire,
cup, thermometer No
73846 and small lead,
stray line.

Catalog No.

No. City 4506 Date June 18, 1902
Sounding Machine Reel.
Turns 502 Cor. + 50 Depth 552 fms
Shot or lead 60 lbs.
Bottom 57° S. Lat. 1.0 m. fm.
Bottom temperature 43°
No. of thermometer 13442 Cor.
Corrected temperature
Air 79 Surface 77 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
51.20	02.10	0		
	10.01	100		
53.05	59.50	200		
53.55	58.40	300		
54.45	57.40	400		
55.40	56.25	500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

N
O. 10.
V. 2.

{ 2

4810

265

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Lower & S. S. G.

Port Log. 54

Nathaniel

No. 4507 Date July 13, 1902
Sounding Machine Reel. Heavy.

Turns 70 Cor. + 7 Depth 77 fms

Shower lead 36 lbs.

Bottom cor. or 73

Bottom temperature

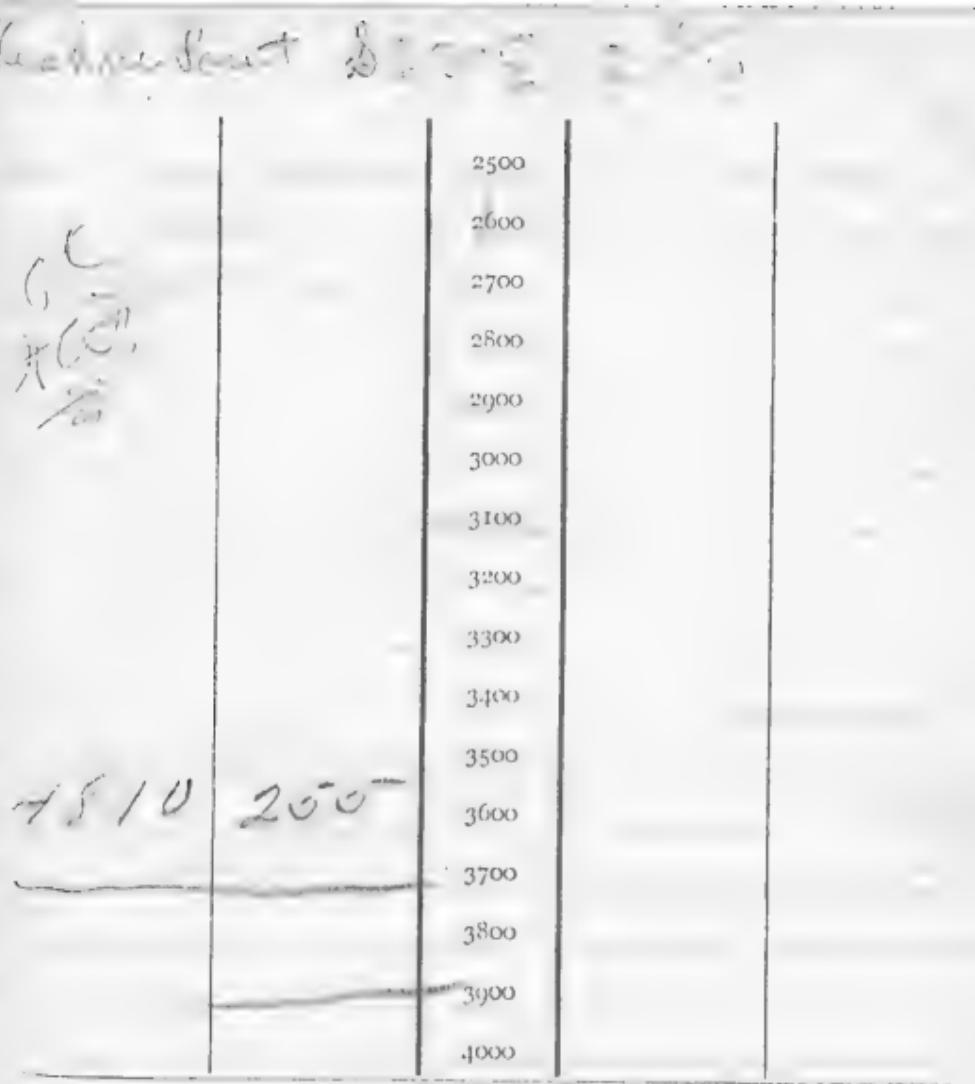
No. of thermometer 72442 Cor.

Corrected temperature

Air 77 Surface 75 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
15-17.35	20 =	0		
1625	1712	100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		



SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Office E.S.O. (y.m.c)

Catalog 57

No. 4508 Date May 13th
 Seismograph Machine Reel. Flans.
 Turns 450 Cor. + 100 Depth 495 fms
 Shot on land 30° up.
 Bottom fine gray sand with some shell
 Bottom temperature 40°
 No. of thermometer 934462 Cor.
 Corrected temperature
 Air 79 Surface 78 Drift
 Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
10.50.50	11.00.00	0		
51.20	59.25	100		
52.40	58.20	200		
53.30	57.10	300		
54.20	56.10	400		
54.50	55.00	500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Keweenaw Lake, 85° E., 15° N.

		2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
		3700	
		3800	
		3900	
		4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

June 30 (noon)

Oct 19 60

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
10. 33. 00	48.35	0		
10. 33. 00	47.30	100		
10. 33. 00	46.30	200		
10. 33. 00	45.35	300		
10. 33. 00	44.40	400		
10. 33. 00	43.40	500		
10. 33. 00	42.40	600		
10. 33. 00	41.40	700		
10. 33. 00	40.40	800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Seabird Park, NY 2008, 2710

SL
NO.
11/21

725
13
401

4510

2655

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Conse d'ale (yes)

63.0 -

No. 10 Date 14 July 1907
 Machine Reel
 Turns 400 Cor. + 88 Depth 988 fms.
 Shot or lead 60
 Bottom temp. 78.2
 Bottom temperature 78.2
 No. of thermometer 92 Cor.
 Corrected temperature
 Air 78 Surface 72 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
12.1.10	12.41.30	0		
13.00	40.70	100		
13.10	39.20	200		
13.50	36.20	300		
14.10	37.10	400		
14.50	39.00	500		
15.00	41.00	600		
15.50	43.10	700		
16.00	47.70	800		
16.50	51.10	900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kennebunk Point, July 16th 1891.

61°
60°

4810

		2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
		3700	
		3800	
		3900	
		4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

1000 fathoms / 5.5, 6.5, 7.5, 8.5

905 660

No. 11511 Date 1st July
 Machine, 1 Reel. Park
 Turns 878 Cor. + 878 Depth 9665 fms
 Shot or lead 60

Bottom, in gyds after correction for

Bottom temperature ~~78°~~

No. of thermometer ~~92.422~~ Cor.

Corrected temperature

Air 78 Surface 77 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
15.00	15.00	0		
16.00	16.00	100		
17.00	17.00	200		
17.00	17.40	300		
18.00	18.00	400		
19.00	21.10	500		
20.00	21.00	600		
21.00	21.41	700		
21.00	21.70	800		
21.00	21.70	878		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

BOTTLE SINKING.

No. 11517 Date 1904
 Machine. Reel. Trawl
 Turns 951 Cor. + 97 Depth 1043
 Shot or lead 60
 Bottom 100 fms.
 Bottom temperature 37°
 No. of thermometer 92442 Cor.
 Corrected temperature
 Air 79 Surface 77 Drift
 Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
10.20	10.00	0		
	20.00	100		
	30.00	200		
10.00	10.00	300		
10.10	10.00	400		
11.10	11.00	500		
12.20	12.00	600		
12.40	12.00	700		
14.40	14.00	800		
15.40	15.00	900		
16.20	17.50	951		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

			2500	
			2600	
			2700	
			2800	
			2900	
			3000	
			3100	
			3200	
			3300	
			3400	
			3500	
			3600	
			3700	
			3800	
			3900	
			4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

(Obtained 33° at 100 fms.)

P.S. 710

No.

Date

4513 May

14 July 67

Machine.

Reel.

Turns

Cor.

Depth

165 76 8.11 fm

Shot or lead

60 ft

Bottom for 37 fms

Bottom temperature

37

No. of thermometer 92447 Cor.

Corrected temperature

Air

79

Surface

77

Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
2.30.00	2.10.40	0		
24.30	06.40	100		
55.10	31.00	200		
55.50	07.30	300		
56.50	06.20	400		
57.40	05.10	500		
59.30	04.00	600		
59.30	02.50	700		
00.1	3.01.40	800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kekakokua light. 846° E., 7° 13' S.

OK
F. 10

4870 21°

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

OK
F. 10

No. 1111 Date July 07
Machine. Reel.

Turns 58 Cor. + 39 Depth 428 fms

Shot or lead 60

Bottom Spec. 500 fms

Bottom temperature 71.1

No. of thermometer 92 Cor.

Corrected temperature

Air 79 Surface 77 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
40.00	49.00	0		
41.00	49.00	100		
41.50	49.00	200		
42.00	49.40	300		
43.00	49.30	389		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kakabekewaught 83° 4' N E, 5° 15'

10
9
8

4510

21.0

38.4
38.3
38.9
41.2

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

60 m. S. E. 60°

P.L. = 76. -

No. 414515 Date 14 July '02.

Sinker Machine. 1 Reel.

Turns 672 Cor. + 57 Depth 15 fms.

Shot or lead 60 lbs

Bottom 15 fms. from Lang.

Bottom temperature 38.6

No. of thermometer 92462 Cor.

Corrected temperature

Air 79° Surface 77° Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
41.40.00	41.53.30	0		
41.50	42.20	100		
41.50	41.20	200		
42.50	40.15	300		
43.40	49.10	400		
44.35	48.00	500		
41.45.15	41.47.00	522		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kalakaua Light, 853°S., 140°

10	2500		
10	2600		
10	2700		
10	2800		
10	2900		
10	3000		
10	3100		
10	3200		
10	3300		
10	3400		
10	3500		
10	3600		
10	3700		
10	3800		
10	3900		
10	4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

(Concluded) 2.2.5.

P.L. - 73.

No. 114516 Date 15 July '02.

Sounding Machine & Reel Number.

Turns 708 Cor. + 70 Depth 776 fms.

Shot or lead 60 lbs.

Bottom fr. gry S. For.

Bottom temperature 77.8

No. of thermometer 92.442. Cor.

Corrected temperature

Air 78° Surface 77° Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
5.23.50	5.38.40	0		
24.35	37.40	100		
25.20	36.40	200		
26.10	35.35	300		
27.00	34.30	400		
27.58	33.30	500		
28.45	32.30	600		
5.29.45	5.31.15	700		
		708		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kalimukka Lpt. 37°40' S. 28°10' E.

K
G.W.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

708
70
727

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Conrad S.C. 2.0.0.

No. 2000 Date 1st Aug '02.

Tanner Machine. — Recl. K

Turns 13 Cor. + / Depth 14 fms.

Shot or lead 2 lb /

Bottom frag. less R /

Bottom temperature /

No. of thermometer { None Cor.

Corrected temperature /

Air 78° Surface 78° Drift { 1 1/10°

Trawl or dredge 8 fms Tangled on rocks.

SOUNDING WIRE.

TURN\$.
SOUNDING WIRE.

DREDGE ROPE.

UP.

DOWN.	UP.	TURN\$.	DOWN.	UP.
7.24.02		13 +	7.24.02	7.24.02
		15.000	7.24.02	
		30	7.24.02	
		300	7.24.02	
		400	7.24.02	
		500	7.24.02	
		600	7.24.02	
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kealakekua Light, N 10° W., $\frac{5}{16}$.

6/6
H.W.
1/3

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

496

12

13

14

1/83

13

1/84

14

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25		Tangles:		
50		Colallines; foliaceous and		
100		branching corals; little sponge;		
200		sea urchins with very large		
300		spines encrusted with coral		
400		lines and sponge with gastro-		
500		pods attached - numerous.		
600				
700				
800				
900				
1000				

REMARKS:

Nuttallism
 No. 5^o 4051 Date July 14-02
 Tamm Machine. Reel.
 Turns 207 Cor. + 8 Depth 215 fms
 Shot or lead 26 lbs.
 Bottom Vol. R.
 Bottom temperature
 No. of thermometer *Morse* Cor. (N57.9)
 Corrected temperature
 Air 83 Surface 79 Drift 1.0'
 Trawl or dredge *Hemp* Tangles on frame

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
7-58.00	04.40	0	8-07.25	09.25
58.45	03.20	100	11.50	05.10
59.20	8-00.10	200	15.55	9-01.30
		300	19.40	57.55
<i>Marks end</i>		400	* 23.10	54.20
5 ^o 4050		500	34.50	50.20
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Kekalakaua Light N $63^{\circ}E$, $1\frac{2}{10}'$

O.P.
S.C.S.

496 1 $\frac{2}{4}$
207

289 8

207

215

Tangles:

Several spiral antipatharians, sponge and coral
fragments.

II

80486+